U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

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COMDTINST 16550.5
FEB 7 1994

COMMANDANT INSTRUCTION 16550.5

Subj: NOTICE TO AIRMEN (NOTAM) REPORTING PROCEDURES FOR LORAN-C AND OMEGA STATIONS

1. Purpose. This instruction provides information and direction to all U.S. Coast Guard personnel involved in the transmission of Loran-C and OMEGA navigation signals. It defines responsibilities and procedures for submitting NOTAM requests in order to provide maximum protection to the aviation community. It consolidates NOTAM request procedures previously scattered throughout several publications. New procedures for NOTAM submission via facsimile (fax) machine are established. Procedures for the Automatic Blink System (ABS) are also covered.

2. Action. Area and District commanders, Commanding Officer, OMEGA Navigation System Center, and Coordinators of Chain Operations shall ensure compliance with the provisions of this instruction.

3. Directives Affected. All previous guidance on issuing Notices to Airmen are cancelled. Where conflicts arise between this instruction and Regional Manager Supplemental Instructions (RMSIs), Chain Manager Instructions, COCO Instructions, the OMEGA Navigation System Operating Procedures (COMDTINST M16566.1A), and the Aids to Navigation Manual, Radionavigation (COMDTINST M16500.13), this instruction shall take precedence.

4. Discussion.

   a. Information concerning the availability of Loran-C and OMEGA transmitted signals (including the availability of

ABS protection) is disseminated to the aviation community via Notices to Airman (NOTAMs) which are strictly controlled by the FAA. NOTAMs are issued in two ways, via an on-line computer data base (NOTAM-Ds) by the U.S. NOTAM Office (ATM-611 or NFDC), and in a bi-weekly published version (type-2 NOTAMs) produced by the Air Traffic Publications Office (ATP 210). The FAA is only interested in future or ongoing Loran-C and OMEGA unusable periods.

b. The NOTAM Office will issue NOTAM-Ds for **scheduled** outages when submitted within a time frame of **3** to **30 days** prior to the event. NOTAM-D announcements of **unscheduled** outages shall be submitted as they occur (as outlined in subparagraphs 6a and 6b). The fax procedure outlined here apply to the NOTAM-D announcements (ATM-611 or NFDC) only. Either the AIG or the fax procedure may be used for **scheduled** events. However, NOTAMS for **unscheduled**, on-going outages **must** be submitted via the fax procedure.

c. In order to submit Type-2 NOTAMs for publication, the Air Traffic Publications Office requires **at least** 17 days notice **prior** to the event. These NOTAMs will continue to be handled via the AIG method.

d. In order to certify Loran-C for aviation use in non-precision approaches to CONUS airports, the Coast Guard is developing the Automatic blink System (ABS). When fully implemented, this system will provide users with an early warning of possible Loran signal inaccuracies by automatically blinking the signal within 10 seconds of detection of a problem. When this protection is not available, the Loran signal must be blinked until a NOTAM (NOTAM-D, ATM-611 or NFDC) can be issued to warn pilots not to use that station or chain. The introduction of ABS is the primary driving force to this instruction.

e. The fax machine will now be used to submit NOTAM-D (ATM-611 or NFDC) requests for **unscheduled**, **continuing** outages to the FAA vice the traditional message procedure. The FAA's NOTAM Office maintains a 24-hour watch adjacent to their fax machine. The traditional message AIG procedure is no longer acceptable for on-going outages due to the potential of unnecessary blink periods caused by an ABS failure. During periods of communications minimizes, this could exceed twelve hours.

5. Responsibilities.

a. **Loran-C Regional Managers** have the responsibility to issue and cancel all Loran-C NOTAMs for scheduled outages of a duration of greater than 2 hours and will keep track

of all current NOTAMs for their area of responsibility. Additionally, they shall ensure that the provisions of this instruction are complied with.

b. **Loran-C Coordinators Of Chain Operations (COCOs)** have the responsibility to issue and cancel all Loran-C NOTAMs for scheduled outages of 2 hours or less and for all unscheduled outages which meet the requirements of subparagraph 6a. Additionally, COCOs shall keep the appropriate Regional Manager informed of all active NOTAMs.

c. **OMEGA Navigation System Center (ONSCEN)** has the responsibility to issue all NOTAMs concerning OMEGA stations. ONSCEN shall also keep track of all outstanding OMEGA NOTAMs and ensure that each is cancelled at the appropriate time.

6. Procedures.

a. Loran-C NOTAMs. NOTAMs and NOTAM cancellations for the Loran-C system will be issued for the following occurrences:

(1) any **unscheduled**, continuing unusable period expected to extend longer than 30 minutes whether in an Out-Of-Tolerance (OOT) condition or off-air,

(2) end of any unscheduled unusable period where an open-ended NOTAM has been issued,

(3) any **scheduled** unusable period lasting over one hour,

(4) Automatic Blink System (ABS) occurrences such as:

(a) disabling/enabling the ABS for maintenance or repair (note: disabling/enabling master ABS effects the entire chain),

(b) taking any action to stop blink caused by a malfunctioning ABS unit (acknowledgment receipt must be received prior to stopping blink),

(c) NOTE: The ABS shall not be de-energized nor taken off-line for scheduled maintenance without first submitting a NOTAM-D fax **and** receiving the return receipt from the NOTAM Office. In the event of a failure in the ABS, the Loran-C station/chain shall be blinked (regardless of availability of the actual signal) until the FAA has confirmed receipt of the NOTAM. The acknowledgment provided by the sender's own fax machine is sufficient proof that the NOTAM request reached the FAA.

(d) NOTE: ABS procedures will go into effect chain by chain once each station in a chain is outfitted with the necessary, fully operational equipment.

(5) any other event concerning Loran-C affecting the aviation community (such as cancellations of out-of-date NOTAMs).

b. OMEGA NOTAMs. NOTAM requests/cancellations for the OMEGA system will be issued for the following occurrences:

(1) any **unscheduled**, continuing unusable period for any station(s) or the entire system lasting over **30 minutes**, such as for emergency repairs or polar cap disturbances,

(2) end of any **unscheduled** unusable period,

(3) any **scheduled** unusable period lasting over one hour such as a maintenance period for any stations or the entire system,

(4) any other event concerning OMEGA affecting the aviation community (such as cancellations of out-of-date NOTAMs).

c. NOTAM fax submission.

(1) NOTAM-Ds for unscheduled, on-going outages shall be submitted via fax machine. The following telephone number applies:

U.S. NOTAM Office (ATM-611):
Voice: (202) 267-9256
Fax: (202) 267-3549

(2) In the event of fax machine difficulties, a telephone call will suffice during unscheduled outages as outlined in subparagraph 6a. Hard copy over the fax machine must follow as soon as possible.

d. Transition period. For a period of at least three months, NOTAM-Ds for unscheduled outages shall be submitted via fax machine as well as the traditional AIG format. Suspending the message procedure will be accomplished with a written amendment to this instruction.

e. NOTAM format via fax. Submit NOTAMs on a unit fax sheet including the station's address, phone number(s) and point of contact. Ensure that the unit's fax number is included. Include a brief comment on the cause (this is for our own purposes) Examples are included as

enclosure (1). Format NOTAMs as shown in the examples listed below. Provide chain identifier (GRI) for Loran-C NOTAMs, station designator (M, X, Y, etc., for Loran-C and A, B, C, etc., for OMEGA) and effective dates (Month-Day-Zulu Time as MMDDHHMM) if applicable as follows:

LORAN-C CHAIN 9960 STN Y UNUSABLE DUE TO XMTR FAILURE

OMEGA STN - B UNUSABLE DUE TO SIGNAL PATH DISTURBANCE

LORAN-C CHAIN 9960 STN Y UNUSABLE FOR AVIATION NON-PRECISION APPROACHES DUE TO ABS FAILURE

LORAN-C CHAIN 9960 STN Y UNUSABLE FOR AVIATION NON-PRECISION APPROACHES EFFECTIVE 01071300 – 01082200 DUE TO ABS MAINTENANCE
(It is acceptable to submit NOTAM-Ds for scheduled outages via Fax.)

f. NOTAM format via AIG message. The AIG message is used for all Type-2 NOTAMs and NOTAM-Ds concerning scheduled outages. Insert a paragraph each for ATP 210 and ATM 611 in the AIG message including the chain identifier (GRI) for Loran-C NOTAMs, station designator (M, X, Y, etc., for Loran-C and A, B, C, etc., for OMEGA) and effective dates as follows:

FOR ATM 611: LORAN-C CHAIN 9960 SCHEDULED UNUSABLE EFFECTIVE 071300Z - 082200Z OCT 93.

FOR ATM 611: OMEGA STN - B UNUSABLE SCHEDULED EFFECTIVE 011200Z - 021200ZJAN 94.

FOR ATP 210: LORAN-C CHAIN 7990 MASTER-XRAY BASELINE SCHEDULED UNUSABLE EFFECTIVE 190700Z - 190900Z OCT 93. ALTERNATIVE OFF-AIR PERIOD 200700Z - 200900Z OCT 93.

FOR ATP 210: NO ACTION REQUIRED.

g. Return receipt for fax submissions.

(1) The acknowledgment provided by the sender's own fax machine is sufficient proof that the NOTAM request reached the FAA. This acknowledgment must be kept as proof of submission until the FAA provides a return receipt.

(2) The NOTAM Office will provide a receipt via fax to the originating office once the NOTAM is issued

These return receipts shall become part of the operational logs. The acknowledgment will consist of

the original NOTAM request and a copy of the final NOTAM. The **LRN XX/XXX LRN** number is the key number and must be included in any future revisions or cancellations. The first two digits correspond to the month that the NOTAM is issued; the remaining digits are sequential for that month.

LRN 01/001 LRN CHAIN 9960 UNUSABLE
Explanation: The entire Northeast U.S. Loran-C chain is unusable.

LRN 01/002 LRN CHAIN 9960 STN Y UNUSABLE
Explanation: The yankee secondary of the Northeast U.S. Loran-C chain is unusable.

LRN 01/003 LRN OMEGA STN B U/S
Explanation: OMEGA station Liberia is out of service.

LRN 04/002 LRN OMEGA PATH DISTURBANCE MAY EXIST ON ALL FREQS 10.2 KHZ SIGNALS MAY BE IN ERROR AS MUCH AS 3/4 OF A LANE EFF 12070000
Explanation: Entire OMEGA system may be inaccurate due to path disturbances effective midnight (zulu time), 07 Dec.

(3) The following abbreviations are used by the FAA NOTAM office computer system and may appear on the return receipts:

NFDC - National Flight Data Center

LRN - Long Range Navigation (NOT Loran)

EFF – Effective

TIL – Until

THRU – Through

FDC - Flight Data Center

STN – Station

U/S – Unservicable

h. Cancellations and Revisions.

(1) A revision is required when a scheduled Loran-C or OMEGA unusable period extends beyond the scheduled period. It is also used to correct inaccurate NOTAMs. Format NOTAM revisions including the Flight Data Center (FDC) number(s) as follows:

REVISE LRN NOTAM 05/012 WITH LORAN-C UNUSABLE EFF 021400-021800.

CANCEL LRN NOTAM 03/023.

(2) A cancellation request is required to cancel NOTAMs issued for all unscheduled unusable periods. It is also used to cancel obsolete NOTAMs which, for one reason or another, were not cancelled correctly. Format NOTAM cancellation requests including the FDC number(s) as follows:

CANCEL FDC NOTAM 2/6560

7. Forms/Reports. No forms or reports are required apart from the required faxes.

W. J. ECKER
Chief, Office of Navigation
Safety and Waterway Services

Encl: (1) Examples of NOTAM fax submissions (3)

ENCL: (1) TO COMDTINST 16550.5

USCG Loran Station Seneca
P.O. Box 28
Romulus, NY
14541-0028
(607) 869-5393
Fax (607) 869-5395

NOTAM ALERT

From: COCO Northeast U.S. Chain (9960)

To: FAA NOTAM Office (ATM 611)

POC: LCDR B. A. Jones

Date: 01 Dec 1993

LORAN-C CHAIN 9960 STN M UNUSABLE EFFECTIVE 12241900 - 12251900
DUE TO TRANSMITTER MAINTENANCE.

LORAN-C CHAIN 9960 STN Y UNUSABLE EFFECTIVE 12311500 - 01021900
DUE TO TRANSMITTER MAINTENANCE.

NOTES:

Explanation: The master station in the Northeast U.S. Loran-chain will be off-air from 1900 on 12/24 to 1900 on 12/25. The Yankee secondary will be off-air from 1500 on the 12/31 to 1900 on the morning of 01/02. This is an example of a NOTAM submitted for two scheduled events each at different stations. These are usually handled with an AIG message. Include a very brief explanation for the outage.

ENCL: (1) TO COMDTINST 16550.5

USCG Loran Station Seneca
P.O. Box 28
Romulus, NY
14541-0028
(607) 869-5393
Fax (607) 869-5395

NOTAM ALERT

From: COCO Northeast U.S. Chain (9960)

To: FAA NOTAM Office (ATM 611)

POC: LCDR B. A. Jones

Date: 01 Dec 1993

LORAN-C CHAIN 9960 STN M UNUSABLE DUE TO TRANSMITTER FAILURE.

NOTES:

Explanation: The master station of the Northeast U.S. Loran-C Chain is presently unusable.

This is an example of a NOTAM submitted for an unscheduled Loran-C off-air period expected to last at least 30 minutes. Since no ending time is given, another notification is necessary in order to cancel the NOTAM.

USCG Loran Station Seneca
P.O. Box 28
Romulus, NY
14541-0028
(607) 869-5393
Fax (607) 869-5395

NOTAM ALERT

From: COCO Northeast U.S. Chain (9960)

To: FAA NOTAM Office (ATM 611)

POC: LCDR B. A. Jones

Date: 01 Dec 1993

LORAN-C CHAIN 9960 UNUSABLE FOR AVIATION NON-PRECISION APPROACHES DUE TO AUTOMATIC BLINK SYSTEM MAINTENANCE AT MASTER.

NOTES:

Explanation: The entire 9960 Chain is unusable for non-precision approaches due to maintenance of the Automatic Blink System at the master station

Loss of the master's ABS will make the entire chain unusable to pilots for non-precision approaches. The chain is still usable for enroute air navigation so it is important to specify that only non-precision approaches are effected.